

# Comparisons of Job Characteristics

**Focus Occupation:** Conservation Scientists (19-1031)

**Associated Occupation:** Environmental Scientists and Specialists, Including Health (19-2041)

Compare Knowledge

Compare Skills

Compare Abilities

Compare Detailed Work Activities

Compare Tools and Technologies

|    |  |
|----|--|
| << | Focus occupation element is much lower             |
| <  | Focus occupation element is lower                  |
| 0  | Focus occupation element is at a similar level     |
| >  | Focus occupation element is at a higher level      |
| >> | Focus occupation element is at a much higher level |

## Knowledge

Similarity of Focus Occupation to Associated Occupation: 77

Focus Occupation: Conservation Scientists (19-1031)

Associated Occupation: Environmental Scientists and Specialists, Including Health (19-2041)

| Associated Occupation's Key Knowledge Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating |    | Evaluation of Focus Occupation                      |
|--|---------------------------------|--------------------------------|---------------------------|----|---|
| Mathematics                                    | 9.2                             | 15.5                           | 10.1                      | << | Extensive education and/or training may be required |
| Chemistry                                      | 4.8                             | 14.9                           | 7.8                       | << | Extensive education and/or training may be required |
| Biology  | 3.7                             | 14.8                           | 16.2                      | 0  | Current knowledge level may be sufficient           |
| Law and Government                             | 5.9                             | 13.5                           | 11.4                      | <  | Expanded education and/or training may be required  |
| Geography                                      | 3.9                             | 12.7                           | 14.3                      | >  | Current knowledge level is likely sufficient        |
| Engineering and Technology                     | 5.7                             | 12.1                           | 10.0                      | <  | Expanded education and/or training may be required  |
| Physics  | 4.3                             | 10.5                           | 7.5                       | << | Extensive education and/or training may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Skills

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Conservation Scientists (19-1031)

Associated Occupation: Environmental Scientists and Specialists, Including Health (19-2041)

| Associated Occupation's Key Skills Elements | Average Rating, All Occupations | Associated Occupation's Rating | Focus Occupation's Rating |    | Evaluation of Focus Occupation                               |
|---|---------------------------------|--------------------------------|---------------------------|----|--|
| Reading Comprehension                       | 10.7                            | 16.1                           | 13.2                      | <  | A higher skill level may be required                         |
| Science                                     | 4.5                             | 15.7                           | 9.3                       | << | Extensive development of skills in this area may be required |
| Writing                                     | 9.2                             | 14.4                           | 11.4                      | <  | A higher skill level may be required                         |
| Complex Problem Solving                     | 9.1                             | 13.4                           | 10.8                      | <  | A higher skill level may be required                         |

|                              |     |      |      |    |  |
|------------------------------|-----|------|------|----|--|
| Judgment and Decision Making | 9.4 | 13.1 | 11.2 | <  | A higher skill level may be required                         |
| Active Learning              | 8.7 | 13.0 | 10.3 | <  | A higher skill level may be required                         |
| Mathematics                  | 6.2 | 12.2 | 7.4  | << | Extensive development of skills in this area may be required |
| Coordination                 | 9.1 | 11.8 | 10.7 | <  | A higher skill level may be required                         |
| Learning Strategies          | 7.2 | 11.7 | 8.0  | << | Extensive development of skills in this area may be required |
| Systems Analysis             | 6.5 | 10.6 | 9.3  | <  | A higher skill level may be required                         |
| Operations Analysis          | 5.0 | 9.3  | 9.0  | 0  | Current skill level may be sufficient                        |
| Programming                  | 2.2 | 6.3  | 3.0  | << | Extensive development of skills in this area may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

| Abilities   |                                 | Similarity of Focus Occupation to Associated Occupation: 93 |                           |                                |  |
|---|---------------------------------|---|---------------------------|--------------------------------|--|
| Focus Occupation: Conservation Scientists (19-1031)   |                                 |   |                           |                                |  |
| Associated Occupation: Environmental Scientists and Specialists, Including Health (19-2041) |                                 |   |                           |                                |  |
| Associated Occupation's Key Abilities Elements  | Average Rating, All Occupations | Associated Occupation's Rating                              | Focus Occupation's Rating | Evaluation of Focus Occupation |  |
| Inductive Reasoning   | 10.2                            | 16.5  | 12.2                      | <<                             | Extensive improvement in abilities may be required |
| Written Comprehension   | 11.0                            | 16.3  | 13.7                      | <                              | Some improvement in abilities may be required      |
| Problem Sensitivity   | 11.1                            | 15.8  | 13.0                      | <                              | Some improvement in abilities may be required      |
| Deductive Reasoning   | 10.6                            | 15.1  | 12.6                      | <                              | Some improvement in abilities may be required      |
| Written Expression  | 9.8                             | 14.4  | 12.1                      | <                              | Some improvement in abilities may be required      |
| Category Flexibility  | 9.0                             | 13.0  | 10.2                      | <                              | Some improvement in abilities may be required      |
| Information Ordering  | 9.9                             | 12.9  | 11.2                      | <                              | Some improvement in abilities may be required      |
| Mathematical Reasoning  | 6.3                             | 12.2  | 8.1                       | <<                             | Extensive improvement in abilities may be required |
| Number Facility   | 6.3                             | 11.9  | 8.1                       | <<                             | Extensive improvement in abilities may be required |
| Flexibility of Closure  | 7.8                             | 11.6  | 8.8                       | <<                             | Extensive improvement in abilities may be required |

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

| Activities that Both Occupations Have in Common | Similarity of Focus Occupation to Associated Occupation: 77 |
|---|---|
|---|---|

**Focus Occupation: Conservation Scientists (19-1031)****Associated Occupation: Environmental Scientists and Specialists, Including Health (19-2041)**

| Work Activities  | Exclusivity of Activity |
|--|-------------------------|
| Adhere to safety procedures  | 12                      |
| Advise clients or customers  | 19                      |
| Advise governmental or industrial personnel                        | 28                      |
| Analyze biological research, test, or analysis data                | 70                      |
| Analyze ecosystem data   | 69                      |
| Analyze scientific research data or investigative findings         | 27                      |
| Classify plants, animals, or other natural phenomena               | 69                      |
| Collect scientific or technical data                               | 30                      |
| Collect statistical data   | 47                      |
| Communicate technical information                                  | 4                       |
| Conduct field research or investigative studies                    | 52                      |
| Confer with engineering, technical or manufacturing personnel      | 25                      |
| Confer with research personnel                                     | 50                      |
| Confer with scientists   | 54                      |
| Develop or maintain databases                                      | 30                      |
| Develop plans for programs or projects                             | 31                      |
| Develop policies, procedures, methods, or standards                | 21                      |
| Develop tables depicting data                                      | 33                      |
| Direct and coordinate activities of workers or staff               | 3                       |
| Direct and coordinate scientific research or investigative studies | 27                      |
| Direct implementation of new procedures, policies, or programs     | 60                      |
| Ensure compliance with government regulations                      | 76                      |
| Explain complex mathematical information                           | 30                      |
| Explain government laws or regulations                             | 68                      |
| Explain rules, policies or regulations                             | 48                      |
| Make decisions   | 24                      |
| Make presentations   | 13                      |
| Plan scientific research or investigative studies                  | 48                      |
| Prepare reports  | 8                       |
| Prepare technical reports or related documentation                 | 22                      |
| Read maps  | 42                      |
| Recommend action to ensure compliance                              | 73                      |
| Record test results, test procedures, or inspection data           | 48                      |
| Resolve engineering or science problems                            | 46                      |
| Use biological research techniques                                 | 68                      |
| Use building or land use regulations                               | 65                      |
| Use computers to enter, access or retrieve data                    | 3                       |
| Use government regulations   | 44                      |
| Use interpersonal communication techniques                         | 10                      |
| Use interviewing procedures  | 23                      |
| Use knowledge of environmental laws and regulations                | 76                      |
| Use knowledge of investigation techniques                          | 16                      |
| Use library or online Internet research techniques                 | 21                      |

|   |    |
|---|----|
| Use mathematical or statistical methods to identify or analyze problems | 30 |
| Use pollution control techniques  | 62 |
| Use quantitative research methods                                       | 35 |
| Use relational database software  | 26 |
| Use scientific research methodology                                     | 21 |
| Use spreadsheet software  | 18 |
| Use word processing or desktop publishing software                      | 17 |
| Write scholarly or technical research papers                            | 36 |

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.

## Tools and Technologies that Both Occupations Have in Common

Similarity of Focus  
Occupation to Associated  
Occupation: 88

**Focus Occupation: Conservation Scientists (19-1031)**

**Associated Occupation: Environmental Scientists and Specialists, Including Health (19-2041)**

| Tools and Technologies                 | Exclusivity |
|--|-------------|
| Audio and visual equipment             | 4           |
| Cameras                                | 2           |
| Computers                              | 1           |
| Content authoring and editing software | 1           |
| Data management and query software     | 1           |
| Industry specific software             | 1           |
| Information exchange software          | 1           |
| Network applications software          | 1           |
| Sampling equipment                     | 12          |
| Soil measuring equipment               | 20          |

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O\*NET (Occupation Information Network) data.